

ABSTRACT

A control circuit and a method discharging capacitor/transistor, for a liquid crystal display (LCD), are provided. The control circuit includes a signal-off detector and an all-gate-on delay cell. When an LCD power-off signal is detected, a first control signal is transmitted to a power supply module for turning off power except the gate-on voltage, and turning off VGH after a specific delay time. A second control signal is also transmitted to the gate-on-delay cell, so that all gates of the pixel transistors are turned on after a second specific delay time. The charges on the pixel transistor are discharged via a source thereof before the gate-on voltage decreases below a threshold value, such that a residual image phenomenon caused by heterogeneous filming fabrication is reduced.